

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A superconducting wire comprising a metal substrate and an overlying superconducting layer $[(3)]$, wherein said metal substrate is a textured metal substrate $[(1)]$ planarized to have a surface layer extending from a surface thereof to a depth of 300 nm with a crystal axis offset relative to an orientation axis by at most 25° , and a surface roughness R_{p-v} of at most 150 nm.

2. (Currently Amended) The superconducting wire according to claim 1, wherein said textured metal substrate $[(1)]$ underlies an intermediate layer $[(2)]$ and said intermediate layer $[(2)]$ underlies said superconducting layer $[(3)]$.

3. (Currently Amended) A method of producing a superconducting wire, comprising the steps of:

planarizing a textured metal substrate $[(1)]$ to have a surface layer extending from a surface thereof to a depth of 300 nm with a crystal axis offset relative to an orientation axis by at most 25° , and a surface roughness R_{p-v} of at most 150 nm; and

depositing a superconducting layer (3) on said textured metal substrate planarized.

4. (Currently Amended) The method according to claim 3, further comprising the step of thermally treating said textured metal substrate $[(1)]$ in a reducing atmosphere at least once after the step of planarizing said textured metal substrate $[(1)]$ and before the step of depositing said superconducting layer $[(3)]$ on said textured metal substrate $[(1)]$ planarized.

5. (Currently Amended) The method according to claim 3, further comprising the step of thermally treating said textured metal substrate $[(1)]$ in a vacuumed atmosphere at least once after the step of planarizing said textured metal substrate $[(1)]$ and before the

step of depositing said superconducting layer [(3)] on said textured metal substrate [(1)] planarized.

6. (Currently Amended) The method according to claim 3, wherein the step of planarizing said textured metal substrate [(1)] is performed by at least one of: mirror finished rolling; mechanochemistry; electrolytic polishing; and chemical polishing.

7. (Currently Amended) The method according to claim 6, further comprising the step of thermally treating said textured metal substrate [(1)] in a reducing atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the step of depositing said superconducting layer [(3)] on said textured metal substrate [(1)] planarized.

8. (Currently Amended) The method according to claim 6, further comprising the step of thermally treating said textured metal substrate [(1)] in a vacuumed atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the step of depositing said superconducting layer [(3)] on said textured metal substrate [(1)] planarized.

9. (Currently Amended) The method according to claim 3, further comprising the steps of:

depositing an intermediate layer [(2)] on said textured metal substrate [(1)]; and depositing said superconducting layer [(3)] on said intermediate layer [(2)].

10. (Currently Amended) The method according to claim 9, further comprising the step of thermally treating said textured metal substrate [(1)] in a reducing atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the step of depositing said intermediate layer [(2)] on said textured metal substrate [(1)] planarized.

11. (Currently Amended) The method according to claim 9, further comprising the step of thermally treating said textured metal substrate [(1)] in a vacuumed atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the

step of depositing said intermediate layer [(2)] on said textured metal substrate [(1)] planarized.

12. (Currently Amended) The method according to claim 9, wherein the step of planarizing said textured metal substrate [(1)] is performed by at least one of: mirror finished rolling; mechanochemistry; electrolytic polishing; and chemical polishing.

13. (Currently Amended) The method according to claim 12, further comprising the step of thermally treating said textured metal substrate [(1)] in a reducing atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the step of depositing said intermediate layer [(2)] on said textured metal substrate [(1)] planarized.

14. (Currently Amended) The method according to claim 12, further comprising the step of thermally treating said textured metal substrate [(1)] in a vacuumed atmosphere at least once after the step of planarizing said textured metal substrate [(1)] and before the step of depositing said intermediate layer [(2)] on said textured metal substrate [(1)] planarized.